UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,373	09/27/2001	Hiroaki Nakamura	1110-0288P	9448

2292   7590   10/19/2007
BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER
MILIA, MARK R

ART UNIT	PAPER NUMBER
2625	

NOTIFICATION DATE	DELIVERY MODE
10/19/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

PTOL-90A (Rev. 04/07)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 June 2007</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

Response to Amendment

1.   Applicant's amendment was received on 6/8/07 and has been entered and made

of record. Currently, claims 1-21 are pending.

Claim Rejections - 35 USC § 112

2.   Applicant's amendment to claims 1 and 17 have overcome the rejection set forth

in the previous Office Action. Therefore the rejection has been withdrawn.

Response to Arguments

3.   Applicant's arguments filed 6/8/07 have been fully considered but they are not

persuasive.

Applicant asserts that Gu (US 5,874,988) fails to teach or suggest the finished-

state-predicting image (the image processed based on the image processing

conditions), displayed on the display, being compared with the selected reference

image. The examiner respectfully disagrees as Gu does disclose such a feature.

Particularly, Gu states a source image (finished-state-predicting image) can be provided

from a plurality of devices, such as scanner, camera, video signal digitizer, etc. The

image source executes some image processing in capturing and providing the image to

the image processing system **120**. One example of an image source given by Gu is a

digital storage device storing digitized video signals. One of ordinary skill in the art

would understand that a digital image captured from a video signal would have some

kind of image processing performed and therefore would not be an unprocessed source

image. Gu further states that the image processing system **120** analyzes the source

image to attain image parameters related to color space or other factors. The source

image an the associated parameters are then compared to a reference image with

known parameters and adjustments are to the source image parameters so as to match

the source image to the reference image so that the parameters match. Thus, Gu

teaches the finished-state-predicting image (the image processed based on the image

processing conditions), displayed on the display, being compared with the selected

reference image.

Claim Rejections - 35 USC § 102

4.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

5.   Claims 1-4, 6-13, and 15-21 are rejected under 35 U.S.C. 102(b) as being

anticipated by U.S. Patent No. 5874988 to Gu.

Regarding claim 1, Gu discloses an image processing apparatus comprising a

display (see Fig. 1), an image processing unit for subjecting an image supplied from an

image data supply source to image processing based on image processing conditions,

thereby obtaining a finished-state-predicting image (see Fig. 1, column 3 line 54-column

4 line 3, column 12 lines 24-35, and column 20 lines 24-38), a memory for storing at

least one image (see Figs. 1 "150" and column 9 lines 42-48), a registration unit for

registering said at least one reference in the memory as a reference image (see column

4 lines 13-24 and 55-61, column 12 lines 24-48, column 14 lines 59-65, and column 17

lines 5-11 and 62-65), a display unit for selecting at least one reference image from said

at least one reference image and simultaneously displaying on said display said at least

one selected reference image together with said finished-state- predicting image of the

image processed by said image processing unit (see Fig. 1, column 5 lines 11-19,

column 9 lines 19-22, column 18 lines 20-51, and column 20 line 55-column 21 line 3),

and a first adjustment unit for adjusting said image processing conditions in said image

processing unit based on an operator's judgment which is done by comparing said

finished-state-predicting image displayed on said display with said at least one selected

reference image displayed on said display in such a manner that an image processing

result of said finished-state-predicting image using adjusted image processing

conditions matches to said at least one selected reference image (see column 3 line 62-

column 4 line 33, column 15 lines 56-61, column 17 line 62-column 18 line 51, and

column 20 line 22-column 21 line 17).

Regarding claim 17, Gu discloses an image processing apparatus comprising: a

display having a single display screen (see Fig. 1, column 5 lines 11-19, column 9 lines

19-22, column 18 lines 20-51, and column 20 line 55-column 21 line 3), an image

processing unit for subjecting an image supplied from an image data supply source to

image processing based on image processing conditions (see Fig. 1, column 3 line 54-

column 4 line 3, column 12 lines 24-35, and column 20 lines 24-38), a manipulation

system (see Figs. 1, column 3 line 62-column 4 line 33, column 15 lines 56-61, column

17 line 62-column 18 line 51, and column 20 line 22-column 21 line 17), a reference

image display controller having a memory for storing at least one image and a

registration unit for registering said at least one reference image in the memory, wherein

the manipulation system selects at least one image as a reference image from said at

least one reference image and simultaneously displaying on said single display screen

said at least one selected reference image together with a finished-state-predicting

image of the image, supplied from the image data supply, processed by said image

processing unit (see Fig. 1, column 4 lines 13-24 and 55-61, column 5 lines 11-19,

column 9 lines 19-22 and 42-48, column 12 lines 24-48, column 14 lines 59-65, column

17 lines 5-11 and 62-65 column 18 lines 20-51, and column 20 line 55-column 21 line

3), and a condition setting section (see Fig. 1 and column 12 lines 24-48), said condition

setting section including a setup subsection for setting image processing conditions and

for calculating image characteristic amounts for the image (see Fig. 1 column 7 lines 25-

35, column 9 lines 49-54, and column 12 lines 24-48), a key adjustment subsection for

verifying the image with the at least one reference image (see column 12 lines 24-48

and column 17 lines 5-11), and a parameter coordinating subsection for receiving image

processing conditions from the setup subsection, said condition setting section adjusting

said image processing conditions in said image processing unit by using said at least

one selected reference image displayed on said display and said finished-state-

predicting image in such a manner that an image processing result of said finished-

state-predicting image using adjusted image processing conditions matches to said at

least one selected reference image (see column 3 line 62-column 4 line 33, column 15

lines 56-61, column 17 line 62-column 18 line 51, and column 20 line 22-column 21 line

17).

Regarding claim 2, Gu further discloses a moving unit for moving said second

reference image displayed on said display (see column 9 lines 19-22 and column 18

lines 32-51).

Regarding claim 3, Gu further discloses at least one of a reference image

enlargement/reduction unit for enlarging or reducing said second reference image and a

reference image partial display unit for partially displaying said second reference image

(see column 18 lines 32-51).

Regarding claim 4, Gu further discloses an output unit for outputting said

selected reference image stored in said memory as a hard copy and a second

adjustment unit for adjusting color and density of said selected reference image stored

in said memory (see Fig. 1 "130", column 7 lines 28-35, column 12 lines 24-48, column

15 lines 3-44, and column 15 line 66-column 17 line 11).

Regarding claim 6, Gu further discloses wherein said image processing unit also

processes said finished-state-predicting image by using image processing conditions of

said at least one reference image registered the memory (see column 3 line 62-column

4 line 33, column 15 lines 56-61, column 17 line 62-column 18 line 51, and column 20

line 22-column 21 line 17).

Regarding claim 7, Gu further discloses wherein a color and a density residual of

a calibration of an output device to which the image processed in said image processing

unit is output are reflected on each of said at least one and said selected reference

images (see column 15 lines 3-44, column 15 line 66-column 17 line 11, and column 20

line 55-column 21 line 18).

Regarding claim 8, Gu further discloses wherein an output device to which the

image processed in said image processing unit is output and an output form used are

selectable and said first adjustment unit modifies image processing conditions for said

finished-state- predicting image in accordance with the output device and output form

selected (see column 7 line 16-column 8 line 67).

Regarding claim 9, Gu further discloses wherein said registration unit registers

image processing conditions for said finished-state-predicting image as image

processing conditions for said at least one reference image (see column 3 line 62-

column 4 line 33, column 15 lines 56-61, column 17 line 62-column 18 line 51, and

column 20 line 22-column 21 line 17).

Regarding claim 10, Gu further discloses wherein said display unit displays said

second reference image and said finished-state-predicting image in a partially

overlapped state on said display and indicates by color or density a magnitude of at

least one of a color difference and a difference in an image structure index between the

second reference image and the finished-state- predicting image in the partially

overlapped state (see Fig. 1, column 5 lines 11-19, column 9 lines 19-22, column 18

lines 20-51, and column 20 line 55-column 21 line 3).

Regarding claim 11, Gu further discloses a unit for designating specific regions in

said second reference image and said finished-state-predicting image displayed on said

display, wherein said display unit indicates by color or density a magnitude of at least

one of a color difference and a difference in an image structure index between said

designated regions (see column 15 lines 19-63).

Regarding claim 12, Gu further discloses wherein said image structure index is a

power spectrum (see column 8 lines 11-19).

Regarding claim 13, Gu further discloses wherein said memory stores said at

least one reference image by colorimetric values (see column 8 lines 11-19, column 9

lines 55-58, column 12 lines 24-43, and column 13 lines 1-13).

Regarding claim 15, Gu further discloses wherein said memory stores said at

least one reference image by values on a standard color space (see column 4 lines 13-

18).

Regarding claim 16, Gu further discloses wherein said standard color space is a

sRGB trichromatic system (see column 8 lines 11-19, column 9 lines 55-58, column 12

lines 24-43, and column 13 lines 1-13).

Regarding claim 18, Gu further discloses wherein the adjusted image processing

conditions are used for the image processing by the image processing unit, thereby

obtaining a new finished-state-predicting image, and the display control unit displays the

new finished-state-predicting image and said at least one selected reference image on

said display (see column 3 line 62-column 4 line 33, column 15 lines 56-61, column 17

line 62-column 18 line 51, and column 20 line 22-column 21 line 17).

Regarding claim 19, Gu further discloses wherein said at least one selected

reference image is an image subjected to image processing of a first original image

prior to the registering and the first original image is different from a second original

image of the image to be processed in the image processing unit (see column 3 line 62-

column 4 line 33, column 15 line 66-column 18 line 51, and column 20 line 22-column

21 line 17)

Regarding claim 20, Gu further discloses wherein said at least one selected

reference image is an image subjected to image processing prior to the registering and

is different from the image to be processed and supplied from the image data supply

source (see column 3 line 62-column 4 line 33, column 15 line 66-column 18 line 51,

and column 20 line 22-column 21 line 17).

Regarding claim 21, Gu further discloses wherein said at least one selected

reference image and said finished-state-predicting image are different from each other

in image content therein (see column 3 line 62-column 4 line 10, and column 12 lines

24-48, reference shows that the images can be any kind, referring to content, of image).

Claim Rejections - 35 USC § 103

6.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

7.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gu as applied to claim 1 above, and further in view of Cookingham (US 6658139).

Gu discloses a registration unit for registering reference images and a display for displaying the reference images (see Fig. 1, column 4 lines 13-24 and 55-61, column 12 lines 24-48, column 14 lines 59-65, and column 17 lines 5-11 and 62-65).

Gu does not disclose expressly wherein said registration unit registers a plurality of reference images for each group corresponding to an image scene and said display unit displays said plurality of reference images for said each group.

Cookingham discloses wherein said registration unit registers a plurality of reference images for each group corresponding to an image scene and said display unit displays said plurality of reference images for said each group (see column 4 lines 26-29 and column 6 lines 24-42).

Gu & Cookingham are combinable because they are from the same field of endeavor, processing and comparison of digital images.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the registration of reference images into groups, as described by Cookingham, with the system of Gu.

The suggestion/motivation for doing so would have been to provide enhanced comparison and increase the efficiency of selecting a reference image by grouping the images based on similar image characteristics.

Therefore, it would have been obvious to combine Cookingham with Gu to obtain the invention as specified in claim 5.

8.   Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gu as

applied to claim 13 above, and further in view of Inoue (US 5844542).

Gu discloses wherein said colormetric values are RGB values (see column 8

lines 11-19, column 9 lines 55-58, column 12 lines 24-43, and column 13 lines 1-13).

Gu does not disclose expressly wherein said colorimetric values are XYZ values

in a CIE1931 standard colorimetric system or L*a*b* values in a CIE1976L*a*b*

perceived color space.

Inoue discloses wherein said colorimetric values are XYZ values in a CIE1931

standard colorimetric system or L*a*b* values in a CIE1976L*a*b* perceived color

space (see column 5 lines 6-15).

Gu & Inoue are combinable because they are from the same field of endeavor,

processing and comparison of digital images.

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to combine the XYZ or L*a*b* colormetric values, as described by Inoue,

with the system of Gu.

The suggestion/motivation for doing so would have been provide for manipulation

of color values is a plurality of color spaces to increase overall efficiency. Gu states that

histograms can be displayed in RGB or other color spaces and Inoue shows other color

spaces that are well known and commonly used in the art and therefore it would have

been obvious to one of ordinary skill in the art to substitute XYZ or L*a*b* colormetric

values for RGB values.

Therefore, it would have been obvious to combine Inoue with Gu to obtain the

invention as specified in claim 14.

Conclusion

9.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Mark R. Milia whose telephone number is (571) 272-

7408. The examiner can normally be reached M-F 8:00am-4:00pm.
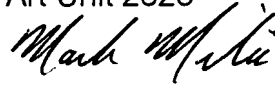
If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Twyler M. Lamb can be reached at (571) 272-7406. The fax number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark R. Milia
Examiner
Art Unit 2625

MRM

TWYLER LAMB
SUPERVISORY PATENT EXAMINER